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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,449	03/29/2004	Pauline Maria Foster-Hamilton	0707-00342 - G00342/US	3169
35758	7590	06/20/2005	EXAMINER	
GKN DRIVELINE NORTH AMERICA, INC 3300 UNIVERSITY DRIVE AUBURN HILLS, MI 48326			DUNWOODY, AARON M	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,449

Applicant(s)

FOSTER-HAMILTON ET AL.

Examiner

Aaron M. Dunwoody

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings were received on 4/12/2005. These drawings are approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US patent 6585601, Booker et al.

In regards to claim 1, in Figure 1, Booker et al disclose an improved boot for use in sealing a constant velocity joint and ball spline joint assembly, the boot comprising:

a plurality of articulating convolutes;

a grease catching member;

a first stabilizing member joining the plurality of articulating convolutes and the grease catching member;

a plurality of plunging convolutes; and

a second stabilizing member joining the plurality of plunging convolutes and the grease catching member.

In regards to claim 2, in Figure 1, Booker et al disclose the articulating convolutes being adapted to accommodate joint articulation to an angle of at least 15 degrees.

In regards to claim 3, in Figure 1, Booker et al disclose the plunging convolutes being adapted to accommodate joint plunge to at least 45 mm.

In regards to claim 4, in Figure 1, Booker et al disclose the first stabilizing member being adapted to ride approximately 1 mm above an inner race of the ball spline joint.

In regards to claim 5, in Figure 1, Booker et al disclose the second stabilizing member being adapted to ride approximately 1 mm above an outer race of the ball spline joint.

In regards to claim 6, in Figure 1, Booker et al disclose the constant velocity joint being a high speed fixed joint.

In regards to claim 7, in Figure 1, Booker et al disclose the boot being adapted to accommodate vehicle installation at an angle of at least 15 degrees.

In regards to claim 8, in Figure 1, Booker et al disclose the boot being adapted to accommodate joint operation up to approximately 7 degrees and 9000 revolutions per minute.

In regards to claim 9, in Figure 1, Booker et al disclose the boot being adapted to accommodate compressive plunge of at least 15 mm and extension of 30 mm.

In regards to claim 10, in Figure 1, Booker et al disclose the boot being adapted to accommodate joint plunge of at least 45 mm.

In regards to claim 11, Booker et al disclose the boot being comprised of a thermoplastic material.

In regards to claim 12, in Figure 1, Booker et al disclose an improved joint assembly, comprising:

- a constant velocity joint;

- a ball spline joint affixable to the constant velocity joint, the ball spline joint having an inner race and an outer race; and

- a boot affixable to the constant velocity joint and the ball spline joint to seal and house the combined joints, the boot comprising:

 - a plurality of articulating convolutes; a grease catching member;

 - a first stabilizing member joining the plurality of articulating convolutes and the grease catching member;

 - a plurality of plunging convolutes; and

 - a second stabilizing member joining the plurality of plunging convolutes and the grease catching member.

In regards to claim 13, in Figure 1, Booker et al disclose the constant velocity joint being a high speed fixed joint.

In regards to claim 14, in Figure 1, Booker et al disclose the assembly being adapted for use in a propshaft.

In regards to claim 15, in Figure 1, Booker et al disclose the articulating convolutes being adapted to accommodate joint articulation to an angle of at least 15 degrees.

In regards to claim 16, in Figure 1, Booker et al disclose the plunging convolutes being adapted to accommodate joint plunge to at least 45 mm.

In regards to claim 17, in Figure 1, Booker et al disclose the first stabilizing member being adapted to ride approximately 1 mm above the inner race of the ball spline joint.

In regards to claim 18, in Figure 1, Booker et al disclose the second stabilizing member being adapted to ride approximately 1 mm above the outer race of the ball spline joint.

In regards to claim 19, in Figure 1, Booker et al disclose the boot being adapted to accommodate vehicle installation at an angle up to approximately 15 degrees.

In regards to claim 20, in Figure 1, Booker et al disclose the boot being adapted to accommodate joint operation of up to approximately 7 degrees and 9000 resolutions per minute.

In regards to claim 21, in Figure 1, Booker et al disclose the boot being adapted to accommodate crash plunge of at least 30 mm extension and 15 mm compression.

In regards to claim 22, in Figure 1, Booker et al disclose the boot being adapted to accommodate joint plunge of at least 45 mm.

In regards to claim 23, in Figure 1, Booker et al disclose an improved boot for use in sealing a high speed fixed joint and ball spline joint assembly, the boot comprising:

a plurality of articulating convolutes adapted to accommodate joint articulation of up to approximately 15 degrees;

a grease catching member;

a first stabilizing member joining and contiguous with the plurality of articulating convolutes and the grease catching member, the first stabilizing member adapted to ride approximately 1 mm above an inner race of the ball joint to provide stability at high speed;

a plurality of plunging convolutes adapted to accommodate joint plunge up to approximately 45 mm; and

a second stabilizing member joining and contiguous with the plurality of plunging convolutes and the grease catching member, the second stabilizing member adapted to ride approximately 1 mm above an outer race of the ball spline joint to provide additional stability.

In regards to claim 24, in Figure 1, Booker et al disclose an external diameter of the grease catching member being generally greater than external diameters of either the first stabilizing member or the second stabilizing member.

In regards to claim 25, in Figure 1, Booker et al disclose an external diameter of the first stabilizing member being generally less than an external diameter of either the second stabilizing member or the outer race of the ball spline joint.

Response to Arguments

Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M. Dunwoody whose telephone number is 571-272-7080. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Aaron M Dunwoody
Primary Examiner
Art Unit 3679

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